HCI HS 2019 course plan (Revision: 30.10.19)

Date	Topical block	Classroom activity	Lecture video	Project activity (in- and outside the classroom)	R: Reading assignment / E: Extra reading (optional)	C	V	P	R	Σ
Sep. 17 Every Tue.: BIN 2.A.01 and 2.A.10 (stream)	Design	Lecture 1: Human-centered design & Interviewing • What is HCI? Why is it important? • Human-centered design process • Course administrative details • How to ask questions • (spillover to Hands-on 1)			R: DOET Human-centered design E: CD-3 (Principles of contextual inquiry)	2			1.5	
Sep. 18 Every Wed. At Irchel Y35-F-32		Hands-on 1: Interviewing • Problematic interview questions • Whom should I interview? • Principles in contextual inquiry • Video interviewing • Grouping • Time for project meeting and planning for the project • Groups setup IT infrastructure	Lecture 2: Analyzing qualitative data • Thematic analysis • Interpretation session • Affinity diagramming Lecture 3: Ideation and Prototyping • Brainstorming technique and pitfall ✎ (required for the next lecture)	Brainstorm potential user groups Deadline for proposing the user group, 18:00	R: RCD-3,4 planning and running contextual inquiry interview (required for the project next ✎ week)	1	2	1	3.5	11
Sep. 24		Hands-on 2: Coding, affinity diagramming, brainstorming • Practice: Coding and affinity diagramming from an example dataset • Q&A about interviewing and analysis • Practice: brainstorming	Lecture 3: Ideation and Prototyping (continued) • Prototyping: rationale, purpose • Storyboarding • Drawing crash-course • Paper prototyping • Prototyping software and limitations • Other forms of prototyping (video, hardware) ✎ (required for the next lecture)	Prepare the interview guide	R: RCD-5, 8 interpretation session, building an affinity diagram E: RCD-6,7 work modeling (required for the project next ✎ week)	1	2.5	2	3.5	
Sep. 25		Hands-on 3: Paper prototyping • Choosing prototyping method • Paper prototyping practice • Q&A about prototyping Project work: drafting the first interview guide		Interviewing		1.5		2		12.5
Oct. 1		Project work slot (unsupervised) • Interpretation session and affinity analysis • Prepare further interview questions or further research on the topic	Lecture 4: Design principles • Conceptual model & discoverability • Affordance • Signifier • Feedback • Mapping • Constraints and forcing functions	Transcription and coding	R: DOET Fundamental principles of interaction		2	3	3	
Oct. 2		Lecture 5: Testing • Principles • Usability test setup • Think-aloud • Wizard-of-oz • Heuristic evaluation		Interpretation, affinity diagram Further interviews and research		2		3		13
Oct. 8	Psychology	Project work slot (unsupervised) • Further interpretation session and affinity analysis • Prepare the presentation		Further interviews and research				4		
Oct. 9		Lecture 6: Model human processor • Perceptual processor • Cognitive processor • Motor processor • Memory • Knowledge in the head vs. in the world		Prepare the presentation and the mid-term report	E: DMM-7–10 attention, memory, recognition and recall, learning	2		4		10
Oct. 11		Deadline for canceling module booking midnight								
Oct. 14				Slide submission deadline, 18:00						
Oct. 15		Presentation: understanding status-quo (8 minutes/team) Both rooms in parallel	Lecture 7: Time • Human time limits • GOMS-KLM • Fitts's law • Hick-Hyman Law • Information-theoretic efficiency • Practice: estimating time from case studies	Finalize the report	R: The Humane interface • GOMS-KLM • Information-theoretic efficiency E: DMM-13,14 Laws and Time requirements	1	2.5	3	4	
Oct. 16		Project work slot (unsupervised) • Brainstorming and prototyping		Mid-project submission deadline, 18:00		1		1		12.5
Oct. 22 Only BIN 2.A.01		Project coaching slot (on-demand)	Lecture 8: Errors • The seven stages of action model • Gulfs of evaluation and gulfs of execution • Taxonomy of errors • The Swiss cheese model • Practice: case study discussion	Brainstorm the design directions and create initial prototypes	E: RCD-13,14 Testing with paper prototypes and paper prototype interviews (useful for the project next ✎ week)		2.5	5		
Oct. 23		Project work slot (unsupervised) • Brainstorming and prototyping		Brainstorm the design directions and create initial prototypes				5		12.5

Abbreviations:
- C: In-class (including reviewing at home)
- V: Lecture video (including reviewing)
- P: Project activities
- R: Reading assignment (compulsory, examable)
- Σ: Total
- E: Extra reading (optional, not in the exam)
- DOET: "The Design of Everyday Things"
- CD-#: "Contextual Design" book (chapter #)
- RCD: "Rapid contextual design" book
- DMM: "Design with the Mind in Mind" book

Workload summary

Week	Hours
Sep. 17	11
Sep. 24	12.5
Oct. 1	13
Oct. 8	10
Oct. 15	12.5
Oct. 22	12.5
Oct. 29	8
Nov. 5	11
Nov. 12	11
Nov. 19	12
Nov. 26	13
Dec. 3	12
Dec. 10	3
Exam prep	20
Total	**161.5**
6 ECTS × 30	180

Median 12

Estimated number of hours
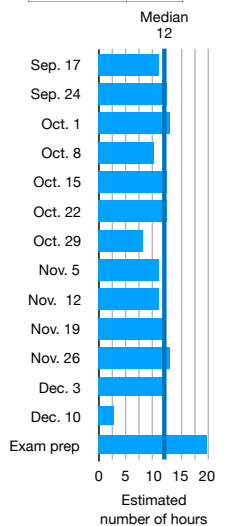
Final grade:

Mid-term report	15%
Final project	35%
Exam	50%

Document history:
18.09.19
Preview version

17.09.19
- Added details about guest lecture and move the visual perception and design lecture into a video slot.
- Updated lecture rooms

Date	Topical block	Classroom activity	Lecture video	Project activity (in- and outside the classroom)	R: Reading assignment / E: Extra reading (optional)	C	V	P	R	Σ
										Estimated student workload (hours)
Oct. 29		Demo Day: initial prototypes (8 minutes/team) Both rooms in parallel	Lecture 9: Visual perception and design • Preattentive processing • Gestalt principles • Practice: case study analysis • Practice: case study discussion	Prototyping and testing	E: DMM-2,3 Visual structure	2				
Oct. 30		Project work slot (unsupervised) • Brainstorming and prototyping		Prototyping and testing				6		8
Nov. 5		Project coaching slot (on-demand)		Prototyping and testing		1.5		4		
Nov. 6		**Guest lecture on Designing for accessibility** by Werner Hänggi (AdNovum) • Disabilities and accessibility • Accessibility in the design process • The ARIA standard		Prototyping and testing		1.5		4		11
Nov. 7		**IFI Colloquium (voluntary attendance) 17:45–18:30 at BIN 2.A.01** "Building a Better Bicycle for the Mind" by Prof. James Eagan (Télécom Paris, Institut Polytechnique de Paris)								
Nov. 12	Interactions	Project coaching slot (on-demand)		Prototyping and testing				4		
Nov. 13		Lecture 10: Interaction styles • Definitions • Benefits and problems • Seminal works for each interaction style • Frontiers of interaction design		Prototyping and testing		2		5		11
Nov. 19		Project coaching slot (on-demand)	Lecture 11: Input Devices and Interaction Techniques • Text entry • Pointing • Speed and accuracy measures • Transfer function • Control-Display gain • Pointer acceleration	Implement final prototype			3	5		
Nov. 20		**Guest lecture on Research in virtual reality** by Morten Fjeld (Chalmers University of Technology)		Implement final prototype				4		12
Nov. 26	Research	Project coaching slot (on-demand)	Lecture 12: Survey and experimental research: • Survey • Sampling • Correlational knowledge • Practice: interpreting correlational results from research papers • What is true experiments? • Independent, dependent variables • Practice: identify components of experiments from excerpts of research papers	Implement final prototype Prepare the report			2	6		
Nov. 27		Project work slot (unsupervised)		Implement final prototype				5		13
Dec. 3		Project work slot (unsupervised)		Prepare the presentation and the report				5		
Dec. 4		Exam preparation lecture • Q&A HCI Research • Exam examples • Filling course evaluation questionnaire • Discuss course evaluation • Project meeting and coaching		Prepare the presentation and the report		2		5		12
Dec. 9	Wrap-up			Slide submission deadline, Dec 9 18:00						
Dec. 10		Project presentation 1 Both rooms in parallel				1.5				
Dec. 11		Project presentation 2		Final report submission deadline, 18:00		1.5				3
Dec. 17	Exam	(no lecture; exam preparation at home)								
Dec. 18		(no lecture; exam preparation at home)								20
Jan. 7		Exam at **KOL-F-118**, **KOL-F-121 Rämistrasse 71**								
Jan. 30 11:00–12:00		Exam viewing at **1.D.29** Prior booking needed. Procedures will be announced together with the course grade.								
Total						**23.5**	**16.5**	**86**	**15.5**	**161.5**

- Swapped some lecture slots to leverage the big lecture hall

18.09.19
Adjusted the schedule for the second week to leverage new room arrangement

25.09.19
Added AF to the team

10.10.19
Updated project deadlines

30.10.19
Updated the date for the guest lecture